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Basil Karanikos

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Wolf Greenfield
600 Atlantic Avenue
Boston, MA 02110

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1 RECORD OF ORAL HEARING
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3 UNITED STATES PATENT AND TRADEMARK OFFICE
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5
6 BEFORE THE BOARD OF PATENT APPEALS
7 AND INTERFERENCES
8

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10 Ex parte BASIL KARANIKOS and FREDRICK ROSSI
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13 Appeal 2009-003780
14 Application 10/658,925
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17 Oral Hearing Held: Tuesday, June 9, 2009
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21 Before CHUNG K. PAK, KAREN M. HASTINGS, and
22 MICHAEL COLAIANNI, Administrative Patent Judges
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26 ON BEHALF OF THE APPELLANTS:
27

28 ROBERT HUNT, ESQ.
29 Wolf, Greenfield & Sacks, P.C.
30 600 Atlantic Avenue
31 Boston, MA 02210
32 (617) 646-8000
33
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1 The above-entitled matter came on for hearing on Tuesday,
2 June 9, 2009, commencing at 9:35 a.m., at the U.S. Patent and Trademark
3 Office, 600 Dulany Street, 9th Floor, Hearing Room A, Alexandria,
4 Virginia, before Kevin Carr, Notary Public.

5 JUDGE PAK: Welcome, Mr. Hunt. As you are aware, we
6 have a court reporter here today. He's going to transcribe the entire hearing
7 including all of your arguments, and the transcript itself will become part of
8 the record. As you know, you have 20 minutes for your argument and you
9 may start any time you wish.

10 MR. HUNT: Sure. Thank you. First off if you have any
11 questions please interrupt me as you like. I'm Bob Hunt, here for the
12 Appellant Keurig on this case. As you know, the claims in this case relate to
13 beverage cartridges. I brought a few sample cartridges here with me. I
14 brought two different types. One that would be, in various stages of
15 construction that would be covered by the claims, and another one here that
16 incorporates the technology from the Sylvan reference which is the 765
17 patent used to reject the claims, okay?

18 The cartridges share sort of some common features. One is the
19 outer cup -- the white plastic part on the bottom, and a foil lid -- I took off
20 most of the lid -- but a foil lid that covers the top. Inside the filter cartridge,
21 there's a filter that is attached at the periphery around the top of the
22 cartridge. And it hangs down. It has coffee on the inside. I took the coffee
23 out so we wouldn't have a mess here today. So, there it is. It's fairly
24 straightforward. That's the cartridge.

1 Now, to use the cartridge to make a coffee beverage -- I brought
2 part of the brewing machine. Obviously there would be other parts with the
3 tank and pump and so on -- but this is what they call the brew chamber
4 where the cartridge is placed. To make coffee you lift the lid, you put the
5 cartridge in, which is completely sealed, and then close the lid. Once you
6 have that state you're ready to go. Closing the lid does two things with the
7 cartridge.

8 As you can sort of see up here at the top, there's an inlet needle
9 that pierces a hole at the top part of the cartridge. And down at the bottom,
10 which is even harder to see it because it's small, is an outlet needle, which
11 pierces an even smaller hole at the bottom of the cartridge. Once the
12 cartridge is in and the lid is closed, pressurized water can be injected into the
13 cartridge through the top needle, which then mixes with the coffee, passes
14 through the filter and out the outlet needle to your cup. This cartridge -- the
15 Sylvan cartridge -- was developed by Keurig probably about 20 years ago
16 and it's still in use today.

17 As you can see the Sylvan reference itself was filed in 1992.
18 They use this cartridge -- Keurig does -- Keurig still uses this cartridge,
19 mainly for tea beverages but also for some of their coffee beverages. About
20 10 years ago some Keurig customers were requesting more and different
21 coffee beverages, in particular bolder style coffee beverages. The Keurig
22 people tried to make those beverages using this cartridge but they were not
23 able to for a variety of reasons.

24 There's a careful balance of parameters and factors that work
25 together to make coffee in the cartridge like this, including filter surface

1 area, the pressure of the water that's injected, the temperature of the water,
2 the flow rate and so on. And anyway the Keurig people simply were not
3 able to make those bolder style coffee beverages using this arrangement. So
4 the engineers were basically set off on a path to redesign the cartridge, or at
5 least part of the cartridge, so that they could make these beverages for their
6 customers.

7 So about eight or 10 years ago the engineers started thinking
8 about it. And they were struck with a few different things. They were stuck
9 with the form factor, because they had now tens of thousands of these
10 brewers out on the market. If they change the size or the shape of the
11 cartridge it wouldn't work. They were also stuck with the way the brewers
12 work: The pressure used, the temperature and the flow rates involved in the
13 brewers was not something that they could change. The brewers were
14 already out in the marketplace.

15 So there is another piece of information that the Keurig people
16 had to deal with and that is the accepted wisdom at the time that a filter
17 really should not contact the cartridge sidewalls during use. That's described
18 in the Sylvan reference. Sylvan reference -- this cartridge is a Keurig
19 reference. So the engineers well understood.

20 This had come 10 years before and was accepted wisdom
21 within the company, that you should not have a filter touch the sidewall of
22 the cartridge during use. If the filter touches the sidewall during use -- and
23 Sylvan describes some of this, what can happen is that flow can stop
24 essentially through that part of the filter that's touching the sidewall.

1 And what will then happen is that water won't flow through the
2 coffee grounds in that local region and as a result that coffee, essentially that
3 local area of coffee won't be used to make a beverage, resulting in a weaker
4 beverage. Not only that, you can also get short-circuiting of water through
5 the coffee. So in other words water will just tunnel through, because there is
6 reduced filter area now that the coffee can flow through.

7 And so the end result is that the beverage won't be appropriately
8 made. So anyway, long story short, with all of this in mind the inventors
9 were able to come up with an arrangement where they could use a filter that
10 was radially compliant -- and what I mean by radially compliant, and I will
11 talk about it more, is that the filter can actually move in this direction
12 perpendicular to the height of the cup essentially.

13 They were able to use a filter that is radially compliant in a cup
14 like this, such that the filter could touch the sidewalls of the cartridge and
15 still work appropriately. This was a big deal for them because, like I said
16 they had been 10 years using cartridges as described in Sylvan and with the
17 knowledge that, or at least the understanding that, the filter really should not
18 touch the cartridge sidewall.

19 So I guess maybe it's time to cover the rejections in the case.
20 The rejections of the independent claims are based on the Sylvan reference,
21 the 765, which essentially this cartridge embodies, and the Spiteri reference
22 which essentially discloses a drip style coffee filter; a conically shaped drip
23 style coffee filter that has folds in the sidewall. So you might ask yourself
24 why is the Examiner using a reference from a drip style brewer to combine

1 with a cartridge that uses pressure to brew coffee? Because I think that you
2 might understand if you have ever had espresso, a pressure brewed beverage
3 is quite different in the coffee arena than a drip style beverage. And I think
4 the reason is because simply there is no prior art reference out there, to our
5 knowledge, that uses a filter with a pleated or radially compliant
6 arrangement like I described in a filter cartridge that uses pressurized water
7 to brew coffee.

8 Why is that? Maybe -- I'm guessing -- I don't know the reason
9 exactly but I'm guessing it's probably because of the understanding described
10 in Sylvan that filters basically shouldn't sag or contact the side wall of the
11 cartridge during use.

12 JUDGE PAK: Counsel, the claimed pleated or corrugated filter
13 would not be in full contact with the sidewall of the housing, am I correct?

14 MR. HUNT: It would not be in full contact with the housing.

15 JUDGE PAK: Which allows the passage of the liquid through
16 the corrugation available on the sidewall.

17 MR. HUNT: That's exactly right.

18 JUDGE PAK: So in essence, it's accomplishing the same thing
19 that Sylvan teaches, by not touching the sidewall fully.

20 MR. HUNT: I don't think that's true because I think Sylvan is
21 saying that look, the filters should not touch the wall at all, right? Because if
22 the filter does touch the sidewall and it's not -- I don't think that Sylvan
23 suggests that if a part of the filter touches the sidewall then the entire filter
24 would, but rather if some part of the filter touches the sidewall then you're
25 going to have a problem.

1 And so for that reason the filter should be made to be self-
2 supporting, not sag and touch the sidewall of the container. I think one of
3 skill in the art would take from that teaching in Sylvan that, “wow I really
4 need to make sure that no part of the filter touches the sidewall at all or I'm
5 going to have a problem”. There are a number of reasons laid out in the
6 office action as to why the obviousness combination would be viable.

7 You know, as we all understand KSR requires that for a claim
8 to be obvious you have a combination of known elements for known
9 functions and produce a predictable result. And essentially what I'm saying
10 here is that there was no known function for a radially compliant, for
11 example fluted filter, in pressurized cartridge-brewing environment, and so
12 therefore there was no predictability in using that radially compliant filter in
13 a cartridge like the Sylvan cartridge here.

14 For example, the office action says that one reason that the
15 combination would have been made is because Sylvan describes that the
16 filter should be self-supporting, and Spiteri describes that the filter is self-
17 supporting. But as we detail in the declaration under 132, the two
18 Declarations that we submitted, and also in the Appeal Brief, the term self-
19 supporting are used differently in the two different references.

20 In the Sylvan reference, the 765, self-supporting means that the
21 filter does not sag when wetted so as to contact the sidewalls of the
22 cartridge. In Spiteri, the filter is said to be self-supporting so that the upper
23 edges of the filter won't sag, for example, towards the center of the brew
24 basket when coffee is being made. If you have ever used a drip style coffee
25 maker you might have seen that. Sometimes you'll notice that the filter gets

1 wet and sags towards the center. So in Spiteri, it's using self-supporting in a
2 completely different way than in Sylvan. Like I say Spiteri is saying, I want
3 it to be self-supporting so the top edge won't sag down into the middle. But
4 that's completely irrelevant in a Sylvan cartridge. As you can see in a
5 Sylvan cartridge the filter is suspended from the top. It's attached at the top
6 rim to the inside of the cartridge, so that the filter is hanging in there. There's
7 absolutely no need for the filter sidewalls to have to be self-supporting in the
8 sense that they can support themselves vertically and not fall down into the
9 brew basket.

10 JUDGE PAK: How about the argument that this corrugated
11 configuration will allow the filter element to occupy a smaller amount of
12 area within that housing, and yet provide the same amount of space or more
13 for the filtering purposes?

14 MR. HUNT: Right, do you mean what I'm calling the
15 expedient to manufacture position in the sense that it would be easier to
16 manufacture?

17 JUDGE PAK: If it's corrugated, you are going to have more
18 space, am I right, as opposed to a flat surface?

19 MR. HUNT: Yeah, more filter area, right.

20 JUDGE PAK: More filter area.

21 MR. HUNT: Yes, right. I think while more filter area may be
22 effective in certain applications, for example in water filtration and things
23 like that, in pressurized cartridge coffee brewing that's not necessarily the
24 case. Like I said before there's a complicated balance of factors. If you just
25 simply -- keeping everything else in the brew cartridge the same -- if you

1 simply increase the filter area of the filter, all that will happen then is that he
2 will increase the flow rate through the filter and that will reduce the amount
3 of contact time of the water with the coffee and you'll end up with a weaker
4 beverage.

5 So it's not necessarily desirable to simply increase filter area.
6 You have to have a balance of filter area with the amount of coffee, the
7 pressure and flow rates used and so on. So simply increasing filter area,
8 while it might be effective in water filtration or other applications where you
9 want higher flow rates, is not necessarily a reason to make a modification
10 such as this one.

11 JUDGE PAK: Don't claims 1 and 12 require the filter elements
12 to touch the outer wall housing, contrary to the prior art's teaching?

13 MR. HUNT: Right. Yes, in this sense. The claims require that
14 -- I'm not sure if you're looking at the version of claims in the Appeal Brief;
15 it would be the second line of the second element. So it says the filter
16 element -- that paragraph?

17 JUDGE PAK: Mm-hmm.

18 MR. HUNT: That second line says "the filter element being
19 received in the container and directly joined at a peripheral juncture to an
20 interior of the container sidewall." So it's saying that the filter is attached to
21 the filter sidewall. So it is in contact.

22 JUDGE PAK: So the claims require touching?

23 MR. HUNT: Yes.

24 JUDGE PAK: So such a requirement would be contrary to
25 what's being taught in the primary reference. Because you say --

1 MR. HUNT: This Sylvan filter -- well just to be fair, right? –
2 This Sylvan filter is attached at the peripheral juncture to the container.

3 JUDGE PAK: Oh, okay.

4 MR. HUNT: So that feature is common.

5 JUDGE PAK: Oh, okay. Sylvan doesn't require touching
6 except for some portion of the filter element touching the peripheral surface
7 of the interior of the container --

8 MR. HUNT: Mm-hmm.

9 JUDGE PAK: It would meet the claim in this case.

10 MR. HUNT: It wouldn't if it did? I'm not sure I understand the
11 question. I want to make sure.

12 JUDGE PAK: The claim only requires that only part of the
13 filter touch the wall of the container.

14 MR. HUNT: Yes. I agree. But the distinction that I think I'm
15 trying to make here is that the sidewall -- the claim requires that the filter
16 have a pleated or fluted sidewall, and what I'm saying is that that filter
17 arrangement would be a radially compliant in the sense that when you inject
18 water into it, the filter would expand. And so the likelihood would be that it
19 would touch the interior sidewall of the container.

20 JUDGE PAK: But according to Spiteri, the dimension of the
21 pleated filter can be the same as the dimension that is taught in the Sylvan
22 reference upon expansion.

23 MR. HUNT: I'm not sure I know what you mean by the
24 dimension. I mean Spiteri is really a quite different application. It's a drip
25 coffeemaker or you take a loose filter, put it into a brew basket and then put

1 the coffee inside. If you've ever used a brew drip style coffee maker you
2 know that when you put that filter in, you -- first of all, if it's not expanded
3 and expanded out with your fingers so that it makes a wider opening so you
4 can put the coffee in. And once that coffee's in and the water gets put in, that
5 filter touches the sidewall. So the Spiteri filter really has a very different
6 application and use than what's described in Sylvan.

7 JUDGE PAK: Well according to the Examiner, Spiteri is
8 directed to any conventional coffee filter.

9 MR. HUNT: To the extent that the Examiner is suggesting that
10 Spiteri describes a filter that can be used in a pressurized brewing cartridge
11 like Sylvan, I would disagree.

12 JUDGE HASTINGS: But I guess broadly that the Examiner's
13 position is that corrugated coffee filters are well known in the art.

14 MR. HUNT: Yes.

15 JUDGE HASTINGS: So why would you not use that well-
16 known design feature as a replacement coffee filter in the primary reference?

17 MR. HUNT: Agreed. No question about it, right?

18 JUDGE HASTINGS: That's the issue.

19 MR. HUNT: I mean that's the side of this case that is totally
20 unappealing at first blush.

21 JUDGE HASTINGS: Yeah.

22 MR. HUNT: Because the filters been here 50 years, right?
23 This kind of filter you've seen, maybe not this small, but you've seen it
24 50,000 times for 50 years and so why wouldn't you just take this into the
25 cup? I think the main reason that you wouldn't is in Sylvan. It says directly

1 in Sylvan, and I can point you to the column line -- I know it's in the Appeal
2 Brief and you can find it later, but Sylvan is very clear that one of the objects
3 of the invention and that an important feature is that the filter is self-
4 supporting so that it will not, when wetted, sag and contact the interior of the
5 cartridge. It's really a difference in functional operation.

6 Drip brewing is just not the same as pressure brewing. And if I
7 take it to the extreme, a cup of an espresso coffee is simply just not the same
8 as a drip-style American coffee. There's a really different process involved.
9 So that --

10 JUDGE HASTINGS: That's the issue.

11 MR. HUNT: Right.

12 JUDGE HASTINGS: Any questions?

13 JUDGE PAK: No questions.

14 MR. HUNT: I could go on and on and we could spend more
15 time, but I'm not sure there's a lot --

16 JUDGE HASTINGS: I think the issue is clear.

17 MR. HUNT: Okay.

18 JUDGE PAK: I think we understand the issue. Thank you for
19 coming.

20 MR. HUNT: Thank you.

21 JUDGE PAK: The case is submitted.

22 Whereupon, at approximately 9:53 a.m., the proceedings were
23 concluded.